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20280	7590	06/05/2006	EXAMINER	
MOTOROLA INC 600 NORTH US HIGHWAY 45 ROOM AS437 LIBERTYVILLE, IL 60048-5343			HUYNH, CHUCK	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



**DETAILED ACTION**

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

***Response to Amendment***

1. Claims 3 and 5 are amended.

***Response to Arguments***

1. Applicant's arguments filed 3/13/2006 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues that Forssell et al. (US 6,683,860) does not disclose the claim 1 because Forssell et al. (US 6,683,860) does not disclose "...a virtual bearer between the layers in a device (such as between the RLC and LLC in a mobile) or between the layers in a network. A virtual bearer is between the device and the network." This argument is invalid, for it has no written justification within the claimed language.

2. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

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(i.e., "...a virtual bearer between the layers in a device (such as between the RLC and LLC in a mobile) or between the layers in a network. A virtual bearer is between the device and the network.") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, Applicant does not argue *what* the virtual bearer is (a device/a memory...etc.), but instead argued where the virtual bearer is located, which is not claimed within the claim language.

Regarding claim 9, Applicant argues that Forssell et al. (US 6,665,280) does not disclose a virtual bearer, and therefore cannot disclose a type of virtual bearer being transmitted. Examiner respectfully disagrees; due to the broadness of the claim language, the virtual bearer is interpreted as information/data bearer for transmission purposes. In this case, the Temporary Block Flow (TBF) bears the information data between mobile station and network (Forssell et al. (US 6,665,280): Col 1, lines 61-62). The TBF is created as an uplink or downlink TBF when required (Col 2, lines 39-54). Furthermore, due to the broadness of what a virtual data type entails it is interpreted that the data types are information elements in the tables (Col 8, lines 53-67 – Col 9, lines 1-53).

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Regarding claim 14, Applicant argues that Forssell's (US 6665280) does not disclose a virtual bearer and fails to determine that a virtual bearer is required. It also fails to disclose over-dimensioning during a virtual bearer mode of operation. Landais also fails to disclose determining that a virtual bearer is required. Furthermore, Landais fails to disclose over-dimensioning the downlink signal to accommodate a cell change during a virtual bearer mode.

Examiner respectfully disagrees. Forssell (US 6665280) does disclose determining that a virtual bearer is required on the downlink (which is determining to create TBF for data bearing transmission Col 2, lines 39-54). Forssell's (US 6665280) discloses all the particulars of the claim like over-dimensioning the downlink (increasing downlinks by creating more TBFs for DL transfer Col 2, lines 29-49; Col 8, lines 46-48) but does not disclose the cell change by the mobile during a streaming bearer type of virtual bearer mode of operation.

However, Landais does disclose a cell changing selection process of a mobile during data transfer (Page 1, [0019-0025]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to combine Landais's disclosure of a cell changing process to provide better connection.

Regarding claim 16, Applicant argues that Landais fails to disclose a virtual bearer or applying flow control to the lower layers in a virtual bearer, let alone applying flow control to the lower layers in a virtual bearer responsive to a determination that a cell change is imminent. In Landais, paragraphs 29 and 30 describe flow control at the

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network to hold transmissions to the mobile, such that the network stops transmitting to the mobile until the mobile transmits the identity of the target reselected cell. While applicant's invention offers an improvement in the user experience where the cell reselection steps of Landais take place, Landais does not show or suggest virtual bearer operation or operating a virtual bearer to accommodate cell reselection as defined in the claim.

Examiner respectfully disagrees. Due to the broadness of the claim, Landais does disclose a method of operating a mobile communication device, comprising:

storing at least one frame of a communication signal received from a network (data transfer in progress from network to mobile station) (Page 2, [0029-0030]);

and applying flow control to the lower layers (RLC) in a virtual bearer (due to the broadness of the claim language a virtual bearer is interpreted as a data bearer for transmission (TBF) (Page 4, [0066-0067]) responsive to a determination that a cell change is imminent (Page 2, [0029-0030]).

Regarding claim 17, Applicant argues that Chow discloses negotiation a bit rate, and as the quality of the channel changes over time, negotiating a different rate. This however neither shows nor suggests receiving streaming data at first rate and outputting data at a slower rate during at least a portion of the transmission.

Examiner respectfully disagrees. Chow does disclose a method of operating a mobile communication device, comprising:

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receiving a downlink streaming signal at a first data rate (initial data rate using uplink or downlink TBFs, Col 5, lines 40-44); and

outputting the signal at a slower rate during at least a portion of the transmission (negotiating for a slower bit rate, Col 5, lines 54-60).

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1, 3 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Forssell et al. (hereinafter Forssell US 6683860).

Regarding claim 1, Forssell (US 6683860) discloses a method of operating a mobile communication device, comprising the steps of:

transmitting over-the-air that a virtual bearer mode of operation is supported (Col 9, lines 30-31, 23-26; Col 3, lines 56-67 – Col 4, lines 1-6);

receiving a response (Col 9, lines 26-29); and

selectively operating in a virtual bearer mode depending upon the response (Col 9, lines 16-47).

Regarding claim 3, Forssell (US 6683860) discloses the method according to claim 1, wherein the virtual bearer mode is initiated (the setting up of new Temporary Block Flow Col 8, lines 14-23, 39-40, 50+) in response to a response indication a streaming bearer will be established (Col 7, lines 15-45; Col 8, lines 14-23, 51-53).

Regarding claim 9, Forssell's (US 6665280) discloses a method of operating a communication system including a network element, comprising the steps of:

determining that a virtual bearer is required on the downlink (Col 2, lines 39-54);  
and  
transmitting the virtual bearer type (Col 8, lines 53-67 – Col 9, lines 1-53; Table 2 and 3).

3. Claim 16 is rejected under 35 U.S.C. 102(e) as being anticipated by Landais et al. (hereinafter Landais).

Regarding claim 16, Landais discloses A method of operating a mobile communication device, comprising:

storing at least one frame of a communication signal received from a network (data transfer in progress) (Page 2, [0029-0030]);  
and applying flow control to the lower layers in a virtual bearer (Page 4, [0066-0067]) responsive to a determination that a cell change is imminent (Page 2, [0029-0030]).



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4. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Chow et al. (hereinafter Chow).

Regarding claim 17, Chow discloses a method of operating a mobile communication device, comprising:

receiving a downlink streaming signal at a first data rate (Col 5, lines 40-44); and outputting the signal at a slower rate during at least a portion of the transmission (Col 5, lines 54-60).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell (US 6683860) in view of Forssell (US 6665280).

Regarding claim 2 Forssell (US 6683860) discloses the method according to claim 1, wherein the mobile device includes a first controller maintaining the integrity of the radio link (RLC) (Col 3, lines 12-13; Fig. 2, no.202) and a second controller converting between over-the-air and internal forms (LLC) (Col 3, line 14; Fig. 2, no.204), and communicating between the first controller and the second controller independently

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(direct communication) of the virtual bearer in a transparent mode (Fig.2 connection between no. 202 and 204).

Forssell (US 6683860) discloses all the particulars of the claim except wherein said step of selectively operating includes communicating between the first controller and the second controller via a virtual bearer in the virtual mode.

However, Forssell (US 6665280) does disclose the limitation wherein said step of selectively operating includes communicating between the first controller (RLC) and the second controller (LLC) via a virtual bearer in the virtual mode (Col 6, lines 58-67; Fig. 3).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Forssell's (US 6665280) disclosure to further facilitate data between the RLC and the LLC.

Regarding claim 4, Forssell (US 6665280) discloses a mobile communication device, comprising:

a radio link controller coupled to lower layers (Col 8, lines 40-52);

wherein the virtual bearer is operative to apply flow control to the lower layers in order to maintain a predetermined queue state target (data packets being prioritized) (Col 8, lines 25-35); and

a logical link controller coupled to the virtual bearer for receiving logical link controller frames from the logical link controller (Fig. 3, no. 265; Col 6, lines 24-55).

Forssell (US 6665280) discloses all the particulars of the claim except

a virtual bearer including a buffer storing at least one logical link controller frame of a communication signal.

However, the functionality of claimed virtual bearer is performed by the TBFs in Forssell's (US 6665280) disclosure (Col 8, lines 40-52). Since the TBFs can communicate data individually, no buffer is need; however, a memory buffer such as disclosed in Col. 4, lines 33-38 can be combined.

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate a memory buffer to temporary store data packets (Col 2, line 17; Col4, lines 33-38)

7. Claim 5-8, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell (US 6665280) in view of Landais et al. (hereinafter Landais).

Regarding claim 5, Forssell (US 6665280) discloses a mobile communication device, comprising;

a radio link controller coupled to lower layers (Col 8, lines 40-52);

a logical link controller coupled to the virtual bearer for receiving logical link controller frames therefrom (Fig. 3, no. 265; Col 6, lines 24-55).

Forssell (US 6665280) discloses all the particulars of the claim except

a virtual bearer including a buffer storing at least one logical link controller frame of a communication signal; and

wherein the virtual bearer is operative to apply flow control to the lower layers and is responsive to a determination that a cell change is imminent.

However, the functionality of claimed virtual bearer is performed by the TBFs in Forssell's (US 6665280) disclosure (Col 8, lines 40-52). Since the TBFs can communicate data individually, no buffer is need; however, a memory buffer such as disclosed in Col. 4, lines 33-38 can be combined.

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate a memory buffer to temporary store data packets (Col 2, line 17; Col4, lines 33-38).

Furthermore, Landais does disclose wherein the virtual bearer is operative to apply flow control to the lower layers and is responsive to a determination that a cell change is imminent (Page 1, [0025]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Landais' disclosure to provide a cell changing mean for communication.

Regarding claim 6, Landais discloses the mobile communication device as defined in claim 5, wherein the determination is received from a network (Page 1, [0025]).

Regarding claim 7, Landais discloses the mobile communication device as defined in claim 5, wherein the determination is made by the mobile (Page 1, [0025]).

Regarding claim 8, Landais discloses the mobile communication device as defined in claim 7, wherein the determination is made using a predictive algorithm (page 1, [0025]).

Regarding claim 14, Forssell's (US 6665280) discloses a method of operating a communication system including a network element, comprising the steps of:

determining that a virtual bearer is required on the downlink (Col 2, lines 39-54).

Forssell's (US 6665280) discloses all the particulars of the claim like over-dimensioning the downlink (increasing downlinks by creating more TBFs for DL transfer Col 2, lines 29-49; Col 8, lines 46-48) but does not disclose the cell change by the mobile during a streaming bearer type of virtual bearer mode of operation.

However, Landais does disclose a cell changing selection process of a mobile during data transfer (Page 1, [0019-0025]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to combine Landais's disclosure of a cell changing process to provide better connection.

Regarding claim 15, Landais discloses the method of claim 14, further including the step of not over- dimensioning the downlink signal to accommodate a cell change by the mobile during a background bearer type of virtual bearer mode operation (Page 2,

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[0029-0030]). It is disclose that the downlink is interrupted and therefore not being over-dimensioning.

8. Claim 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell's (US 6665280) in view of Golden et al. (hereinafter Golden).

Regarding claim 10, Forssell's (US 6665280) discloses all the particulars of the claim except the method of claim 9, wherein the step of transmitting includes transmitting an indication of a streaming bearer type for streaming data.

However, Golden does disclose transmitting includes transmitting an indication of a streaming bearer type for streaming data such as video or audio (Abstract; Col 8, lines 50-62; Col 24, lines 45-46).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Golden's disclosure to provide specific requested content to users.

Regarding claim 11, Forssell's (US 6665280) discloses all the particulars of the claim but is not clear on the method of claim 9, wherein the step of transmitting includes transmitting an indication of background bearer type for background data transmission (interpreted as large data blocks).

However, Golden does clear disclose background class downloads like emails (Col 8, lines 59-60).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Golden's disclosure to provide large data transfer request by users.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell's (US 6665280) in view of Forssell's (US 6683860).

Regarding claim 12, Forssell's (US 6665280) discloses all the particulars of the claim but is unclear on the method of claim 9, wherein the step of transmitting includes transmitting an indication of no virtual bearer for interactive data.

However, Forssell (US 6683860) does disclose the fact that the system is able to communicate that there is not virtual bearer (TBF) for data transfer then a new TBF is created for data transfer (Col 5, lines 41-43).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Forssell's (US 6683860) disclosure to provide communicate the need to establish a connection for communication.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forssell's (US 6665280) in view of Golden in further view of Landais.

Regarding claim 13, Forssell's (US 6665280) discloses all the particulars of the claim like over-dimensioning the downlink (increasing downlinks by creating my TBFs

for DL transfer Col 2, lines 29-49; Col 8, lines 46-48) but does not disclose the cell change by the mobile during a streaming bearer type of virtual bearer mode of operation.

However, Landais does disclose a cell changing selection process of a mobile during data transfer (Page 1, [0019-0025]).

It would have been obvious to one ordinarily skilled in the art at the time of invention to combine Landais's disclosure of a cell changing process to provide better connection.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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